

REMARKS

The Applicant thanks the Examiner for the thorough consideration given to the present invention. Claims 1-18 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the remarks contained herein.

35 U.S.C. § 102 Rejections

Claims 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Liu et al. (US2003/0069048). The rejection is respectfully traversed at least for the reasons provided below.

Regarding claim 1, the Applicant respectfully submits that claim 1 as presented is not anticipated by Liu. Claim 1 has clearly presented that an earphone includes a detecting device for providing a status signal **based on whether a user puts on the earphone**. As described in paragraph [0004] of the specification, users usually forget to switch the mobile phone from auto-connecting mode to the manual-connecting mode after taking off their earphones. If a user is not wearing an earphone while the auto-connecting function is in operation, a phone call may be connected without the user answering it. This will lead to increasing missing calls and cause inconvenience for mobile phone users. The present invention is provided to prevent missing phone calls when a user is not wearing the earphone. In other words, a determining module of claim 1 controls the mobile device to selectively execute the auto-connecting function and the manual-connecting function so as to automatically or manually answer an incoming call according to whether the user puts on the earphone. The Applicant submits that these features are not taught by Liu.

Instead, Liu discloses a connection mechanism between a mobile phone and an earphone, which shows a mobile phone receiver/transmitter 1 connected to a mobile phone 3 and a radio earphone receiver/transmitter 2 including an earphone 21. The mobile phone receiver/transmitter 1 includes an off-hook/on-hook circuit 18, which is controlled by a main controller 17 to generate an off-hook/on-hook signal to the mobile

phone 3. As described in paragraph [0028], the mobile phone receiver/transmitter 1 is always at an energy-saving mode if no incoming call is detected. When there is an incoming call to the mobile phone 3, the incoming call detector 12 generates an incoming call signal to the main controller 17. Then, the radio frequency circuit 15 transmits a signal to the radio frequency circuit 27 of the radio earphone receiver/transmitter 2.

The radio earphone receiver/transmitter 2 can be set at a manual in-line mode or an automatic in-line mode. When set at a manual in-line mode, the user decides whether to establish the connection between the mobile phone receiver/transmitter 1 and the earphone receiver/transmitter 2 or not. If the user hears the rings of an incoming call, he or she has to press the control switch 24 of the earphone receiver/transmitter 2 for generating a signal so as to communicate with the mobile phone receiver/transmitter 1 for transmitting and receiving signals. Meanwhile, the spread spectrum function module of the mobile phone receiver/transmitter 1 requests the main controller 17 to control the off-hook/on-hook circuit 18 for generating an on-hook signal to the mobile phone 3. In other words, when set at the manual in-line mode, the control switch 24 is pressed, and then the off-hook/on-hook circuit 18 generates an on-hook signal to the mobile phone 3 so that the connection between the mobile phone 3 and the earphone 21 is established and the call is received by the user.

When set at the automatic mode, establishing the connection between the mobile phone receiver/transmitter 1 and the radio earphone receiver/transmitter 2 is determined by the radio frequency circuit 27 of the radio earphone receiver/transmitter 2. The radio frequency circuit 27 is switched to an energy-saving mode if no incoming call, activated periodically for detecting if there is an incoming call or not, and back to the energy-saving mode after detecting no incoming signal. If an incoming call is detected, the radio frequency circuit 27 is activated by the spread spectrum function module 26 for communicating with its counterpart, the radio frequency circuit 15 of the mobile phone receiver/transmitter 1 (paragraph 29). It is noted that the main controller 17 does not send on-hook signals to the mobile phone 3. The communication is set up by the auto answering function of the mobile 3 or by pressing key manually.

In other words, Liu discloses that the connection between the radio earphone receiver/transmitter 2 and the mobile phone receiver/transmitter 1 is selectively established in the manual in-line mode or the automatic in-line mode. However, Liu fails to teach that the communication between the earphone 21 and the mobile phone 3 is based on whether a user puts on the earphone. Particularly, Liu fails to elaborate how the manual in-line mode or the automatic in-line mode of the radio earphone receiver/transmitter is determined. Even if Liu teaches that the control switch 24 generates an off-hook/on-hook signal while being pressed by a user, Liu still lacks the teaching of an off-hook/on-hook signal being generated based on whether the user puts on the earphone.

That is, Liu did not teach an earphone including a detecting device for providing a status signal based on whether a user puts on the earphone and further failed to teach that a determining module, responsive to the status signal, for controlling the mobile device to selectively execute the auto-connecting function and the manual-connecting function so as to automatically or manually answer an incoming call.

Accordingly, the Applicant submits that claim 1 is not anticipated by Liu and should be allowable.

35 U.S.C. § 103 Rejections

Claims 2-5 and 10-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Liu et al. (US2003/0069048) in view of Yuen et al. (US 5,991,645). The rejection is respectfully traversed at least for the reasons provided below.

As noted above, Liu fails to teach or suggest various elements of Claim 1. This deficiency is not cured by the combination with Yuen et al. The Applicant therefore submits that claims 2-5, 10, and 11 which directly or indirectly depend on a patentable claim 1 and further limit the scope, are believed also to be patentable.

Regarding claim 12, the Applicant respectfully submits that claim 12 as presented is not obvious over Liu in view of Yuen. Claim 12 requires that an earphone includes a detecting device for providing a status signal based on whether a user puts on the

earphone. In other words, a determining module of the amended claim 12 controls the mobile device to selectively execute the auto-connecting function and the manual-connecting function so as to automatically or manually answer an incoming call according to whether the user puts on the earphone. The Applicant submits that these features are not taught or suggested by Liu in view of Yuen.

As stated above, Liu fails to teach an earphone including a detecting device for providing a status signal based on whether a user puts on the earphone and further fails to teach that a determining module, responsive to the status signal, for controlling the mobile device to selectively execute the auto-connecting function and the manual-connecting function so as to automatically or manually answer an incoming call. Accordingly, the Applicant submits that claim 12 is patentable over the combination of Liu and Yuen and should be allowable. In addition, claims 13-15, which directly or indirectly depend on a patentable claim 12 and further limit the scope, are believed also to be patentable.

Claims 6 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Liu et al. in view of Yuen et al. and further in view of Lewis (US 2004/0033820). The rejection is respectfully traversed at least for the reasons provided below.

The Examiner cites the Lewis reference to show that the earphone further includes a hook and a pad rotatably connecting with the hook. The Applicant submits that Lewis lacks the teaching of the control unit turning on the switch so that the incoming call is answered automatically when the hook clips the user's ear. Accordingly, the Applicant submits that claims 6 and 16 are patentable over this combination of references as well.

Claims 7 and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Liu et al. in view of Yuen et al. and further in view of Yamato (US 2004/0204161). The rejection is respectfully traversed at least for the reasons provided below.

The Examiner cites the Yamato reference to show that the earphone further includes a pressure sensor. The Applicant submits that Yamato lacks the teaching of the control unit turning on the switch so that the incoming call is answered automatically

when the user puts on the earphone pressing the sensor. Accordingly, the Applicant submits that claims 7 and 17 define over this combination of references as well.

Claims 8 and 18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Liu et al. in view of Yuen et al. and further in view of Lester (US 6,002,763). The rejection is respectfully traversed at least for the reasons provided below.

The Examiner cites the Lester reference to show that the earphone further includes a temperature sensor. The Applicant submits that Lester lacks the teaching of the control unit turning on the switch so that the incoming call is answered automatically when the first temperature measured by the first temperature sensor is higher than the second temperature measured by the second temperature sensor. Accordingly, the Applicant submits that claims 8 and 18 are patentable over this combination of references as well.

Claim 9 is rejected under 35 U.S.C. §103(a) as being unpatentable over Liu et al. in view of Yuen et al. and further in view of Mooney (US 2002/0098878). The rejection is respectfully traversed at least for the reasons provided below.


The Examiner cites the Mooney reference to show that the earphone further includes an ultrasonic transmitting device. The Applicant submits that Mooney lacks the teaching of the control unit turning on the switch so that the incoming call is answered automatically when the ultrasonic receiving device receives an ultrasonic signal. Accordingly, the Applicant submits that claim 9 defines over this combination of references as well.

Conclusion

In light of the above remarks, the Applicants respectfully submit that pending claims 1-18 are in condition for allowance, and respectfully request the withdrawal of the rejections. Accordingly, a Notice of Allowance is respectfully requested.

Respectfully submitted,

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